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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
	10/559,386	SURAKKA ET AL.
Office Action Summary	Examiner	Art Unit	
	Son T. Hoang	2165	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 December 2005</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-28</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-28</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>06 December 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☒ Some * c)☐ None of:

   1. ☒ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>06 December 2005</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This instant application having Application No. 10/559,386 has a total of

28 claims pending in the application; there are 4 independent claims and 24

dependent claims.

Oath/Declaration

2.   The Applicant's oath/declaration has been reviewed by the Examiner and

is found to conform to the requirements prescribed in **37 C.F.R. 1.63.**

Information Disclosure Statement

3.   As required by **M.P.E.P. 609(C)**, the Applicant's submission of the

Information Disclosure Statement dated December 6, 2005 is acknowledged by

the Examiner. However, Applicant failed to provide copies of all non-patentable

literatures cited. Therefore, only U.S. and foreign patent documents cited have

been considered in the examination of the claims now pending. As required by

M.P.E.P 609 C(2), a copy of the PTOL-1449 initialed and dated by the Examiner

is attached to the instant Office action.

Priority / Filing Date

4.   The Applicant's claim for foreign priority of Finland Patent Application No.

FI-20030855 is confirmed. The Examiner takes the foreign filing date of June 6,

2003 into consideration.

Abstract

5.   The abstract of the disclosure does not commence on a separate sheet in

accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required

and must be presented on a separate sheet, apart from any other text.

6.   The abstract of the disclosure is further objected due to the use of implied

language. Note that in the abstract, the language should be clear and concise

and should not repeat information given in the title. It should avoid using phrases

which can be implied, such as, "The disclosure concerns," "The disclosure

defined by this invention," "The disclosure describes," etc... See MPEP

§ 608.01(b).

        Note that in the abstract, Applicant cites "*The present invention relates to*

a method of ...". This citation clearly provokes the use of implied language.

Appropriate correction is required.

Drawings

7.   The drawings were received on December 6, 2005. These drawings are

acceptable for examination purposes.

Claim Rejections - 35 USC § 101

8.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent
> therefor, subject to the conditions and requirements of this title.

9.   **Claim 24** is rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

        Regarding **claim 24**, "*a computer program comprising program*

instructions for causing the computer to perform the method of..." is being

claimed. However, "*a computer program*" can easily be viewed by a

person with ordinary skills in the art as software per se and functional

descriptive material consisting of data structures and computer programs,

which impart functionality when employed as a computer component. As

such, the claim is not limited to statutory subject matter and is therefore

non-statutory.

The claims above lack the necessary physical articles or objects to

constitute a machine or a manufacture within the meaning of 35 U.S.C.

101. They are clearly not a series of steps or acts to be a process nor are

they a combination of chemical compounds to be a composition of matter.

As such, they fail to fall within a statutory category. They are, at best,

functional descriptive material *per se*.

Descriptive material can be characterized as either "functional

descriptive material" or "nonfunctional descriptive material." Both types of

"descriptive material" are nonstatutory when claimed as descriptive

material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional

descriptive material is recorded on some computer-readable medium, it

becomes structurally and functionally interrelated to the medium and will

be statutory in most cases since use of technology permits the function of

the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d

1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract

ideas, stored on a computer-readable medium, in a computer, or on an

electromagnetic carrier signal, does not make it statutory. See Diehr, 450

U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in

Benson were unpatentable as abstract ideas because "[t]he sole practical

application of the algorithm was in connection with the programming of a

general purpose computer.")

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11.   This application currently names joint inventors. In considering

patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that

the subject matter of the various claims was commonly owned at the time any

inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

and invention dates of each claim that was not commonly owned at the time a

later invention was made in order for the examiner to consider the applicability of

35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35

U.S.C. 103(a).

12.   **Claims 1-7**, and **9-28** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Toner et al. (Pub. No. US 2004/0024760, filed on July 31,

2002; hereinafter Toner) in view of Murakami et al. (Pub. No. US 2004/0181759,

filed on July, 19, 2002; hereinafter Murakami).

Regarding **claim 1**, Toner clearly shows and discloses a method of

processing a data record for finding a counterpart in a reference data set

(*Figure 1*), the method comprising the steps of:

determining in the data record a value of a data field, the

data field representing an identifier (*Figure 3 shows an exemplary*

parsed name where in the inputted suspect name "Robert James

Smith" is divided into three name components 'Robert', 'James',

and 'Smith', [0139]-0140]),

searching for a counterpart for the data record by comparing

to entries of the reference data set the value of the data field and/or

a synonym associated with the value of the data field after

determining if the predetermined synonym acceptance criterion is

fulfilled (*In step 212, each Suspect component word is checked for*

synonyms by reference to the synonym table 302. For example, the

invention would check "Smith" against the entries in the synonym

table 302. In this example, a match exists in row 310. The invention

updates the record 308 corresponding to this match with a pointer

(in this example, 12) of the matching row 310. Such an operation is

represented by steps 708 and 710 of Figure 7. Figure 7 also

illustrates an example form 712 of records 304, 306, and 308,

[0113]. See further Figures 2 & 6).

determining if a synonym candidate and the value of the data field fulfill a predetermined synonym acceptance criterion taking into account writing variations, and if the predetermined synonym acceptance criterion is fulfilled, associating the value of the data field and the synonym candidate as synonyms (*In step 212, each Suspect component word is checked for synonyms by reference to the synonym table 302. For example, the invention would check "Smith" against the entries in the synonym table 302. In this example, a match exists in row 310. The invention updates the record 308 corresponding to this match with a pointer (in this example, 12) of the matching row 310. Such an operation is represented by steps 708 and 710 of Figure 7. Figure 7 also illustrates an example form 712 of records 304, 306, and 308,* [0113]. See further Figures 2 & 6), and

.Murakami discloses:

determining from a set of predetermined identifier values at least one synonym candidate for the value of the data field (*generating a first set of candidate synonyms for the object word, based on whole of the document data and generating at least one second set of candidate synonyms for the object word, based on at least one part of the document data and narrowing the candidate*

synonyms contained in the first set using the candidate synonyms

contained in the second set, [0016]).

It would have been obvious to a person with ordinary skills in the art
ʻat the time of the invention to incorporate the teachings of Murakami with
the teachings of Toner for the purpose of generating the candidate
synonyms more efficiently by handling all abbreviations and peculiar terms
including misspelled or misconverted words ([0015] of Murakami).

Regarding **claim 2**, Murakami further discloses the at least one
synonym candidate is determined using a candidate selection criterion
depending at least on the value of the data field and on a synonym
candidate (*input word is "battery" and words not included in the concept
thereof are contained as candidates. "Cover" ranked fourth and "adapter,"
"bezel," "cheque," and "screw" ranked seventh and lower are noises,*
[0055]).

Regarding **claim 3**, Murakami further discloses the candidate
selection criterion takes into account how similar a synonym candidate
and the value of the data field sound (*Degrees of Relatedness in Table 1,*
[0054]).

Regarding **claim 4**, Murakami further discloses the candidate
selection criterion specifies that at least a predetermined part of the value
of the data field is identical to a predetermined part of a synonym

candidate (*See Table 1 for a variety of spelling variant listed as synonym candidates. Inputted word is "battery, "batt" and "batterie" have the highest degrees of relatedness*, [0054]).

Regarding **claim 5**, Toner further discloses the candidate selection criterion takes into account also a further data field of the data record, said further data field representing a second identifier (*Figure 3 shows an exemplary parsed name where in the inputted suspect name "Robert James Smith" is divided into three name components 'Robert', 'James', and 'Smith'. Each name component can be checked for synonyms*, [0139]-0140]).

Regarding **claim 6**, Murakami further discloses at least one quality parameter is evaluated for a synonym candidate, the synonym acceptance criterion taking into account the at least one quality parameter (*Degrees of Relatedness in Table 1*, [0054]).

Regarding **claim 7**, Murakami further discloses a method, wherein at least one quality parameter takes into account <u>at least</u> one of the following quantities:

a number of changes required for converting the value of the data field to be identical to a synonym candidate; .

a proportion of identical characters in the value of the data field and in a synonym candidate (*See Table 1 for a variety of*

spelling variant listed as synonym candidates. Inputted word is

"battery, "batt" and "batterie" have the highest degrees of

relatedness, [0054]); and

a difference between the length of the value of the data field

and the length of a synonym candidate.

Regarding **claim 9**, Murakami further discloses the proportion of

identical characters takes into account the order of the characters (*If*

candidate synonyms are generated for each person, the candidate

synonyms must be generated in the state where the unique notation used

by the person is ranked first (i.e. has the highest degree of relatedness,

[0044]).

Regarding **claim 10**, Murakami further discloses a first quality

parameter is evaluated for each synonym candidate and at least a second

quality parameter is evaluated at least for the synonym candidate(s)

having the best first quality parameter (*generating a first set of candidate*

synonyms for the object word, based on whole of the document data and

generating at least one second set of candidate synonyms for the object

word, based on at least one part of the document data and narrowing the

candidate synonyms contained in the first set using the candidate

synonyms contained in the second set, [0016]).

Regarding **claim 11**, Murakami further discloses the synonym acceptance criterion requires that there is only one synonym candidate having the best at least one quality parameter (*Table 1 shows that the firstly ranked candidate "batt" has the highest degree of relatedness*, [0055]).

Regarding **claim 12**, Murakami further discloses a method, wherein at least two quality parameters are evaluated for each synonym candidate and the synonym candidate acceptance criterion specifies a threshold for one of the at least two quality parameters, the threshold being dependent on a further one of the at least two quality parameters (*generating a first set of candidate synonyms for the object word, based on whole of the document data and generating at least one second set of candidate synonyms for the object word, based on at least one part of the document data and narrowing the candidate synonyms contained in the first set using the candidate synonyms contained in the second set*, [0016] *Candidate synonyms of the first set can be narrowed with the candidate synonyms of the second sets similarly to the aforementioned method. In this case, the candidates which are ranked in places equal to or higher than a threshold value place in the second sets are evaluated to be "absolute." The candidate synonyms evaluated to be "absolute" are almost regarded as synonyms*, [0021]).

. Regarding **claim 13**, Toner further discloses a method, wherein the search for the counterpart involves comparison of the value of the data field to a synonym set relating to the identifier, members of said synonym set referring to respective predetermined identifier values, and when the predetermined synonym acceptance criterion is fulfilled, the value of the data field is added to the synonym set as a member referring to the synonym associated with the value of the data field before the search for the counterpart (*In step 212, each Suspect component word is checked for synonyms by reference to the synonym table 302. For example, the invention would check "Smith" against the entries in the synonym table 302. In this example, a match exists in row 310. The invention updates the record 308 corresponding to this match with a pointer (in this example, 12) of the matching row 310. Such an operation is represented by steps 708 and 710 of Figure 7. Figure 7 also illustrates an example form 712 of records 304, 306, and 308*, [0113]. See further Figures 2 & 6).

Regarding **claim 14**, Murakami further discloses wherein determining the at least one synonym candidate is discarded, if a predetermined discard criterion is fulfilled (*the input word is "battery," and words not included in the concept thereof are contained as candidates. "Cover" ranked fourth and "adapter," "bezel," "cheque," and "screw" ranked seventh and lower are noise*, [0055]).

Regarding **claim 15**, Toner further discloses the predetermined discard criterion specifies that the value of the data field is identical to one of the predetermined identifier values (*see the example of permutation process of name components in Figure 6*).

Regarding **claim 16**, Toner further discloses the search for the counterpart involves the synonym set and the predetermined discard criterion specifies that the value of the data field is at least one of the following: one of the predetermined identifier values (*see the example of permutation process of name components in Figure 6*), and a member of the synonym set.

Regarding **claim 17**, Toner further discloses the predetermined discard criterion takes into account a value of a second data field in the data record (*see the example of permutation process of name components in Figure 6*).

Regarding **claim 18**, Toner further discloses information indicating the at least one synonym associated with the value of the data field is added to the data record (*the program checks each component word within the Suspect name and determines whether or not it has any synonyms. If a word has synonyms, the row number in the synonym table 302 (Figure 3) is associated with it (i.e., the row number is inserted in the same record as the word string*, [0096]).

Regarding **claim 19**, Toner further discloses a method, wherein a

copy of the data record is made for each synonym associated with the

value of the data field (*Figure 6 shows the permutation result for the*

suspect name 'Dick Charles Robert', each component name associated

with a synonym will be searched against the data base for matching

result).

Regarding **claim 20**, Toner further discloses a method, wherein the

identifier relates to a name of one of the following: a geographical entity, a

person and an organisation (*Abstract*).

Regarding **claim 21**, Toner clearly shows and discloses a method

of processing a synonym set for searching counterparts in a reference

data set for data records (*Figure 1*), a data record containing a data field

representing an identifier (*Figure 3 shows an exemplary parsed name*

where in the inputted suspect name "Robert James Smith" is divided into

three name components 'Robert', 'James', and 'Smith', [0139]-0140]),

members of the synonym set being first identifier values and referring to

respective second identifier values, the second identifier values being

predetermined identifier values (*Figure 6 shows the process of computing*

permutations for words that have synonyms in the suspect name "Dick

Charles Robert". The suspect name is divided into three name

components, each is associated with a synonym (if the synonym exists).

This process results in nine possible permutations using the synonym

table in Figure 3), and said searching for a counterpart involving

comparison of a value of the data field to the synonym set (*Name*

substitution matching, where component words of the Suspect name are

checked against a synonym table and are replaced with their respective

synonyms, [0088]),

if the value of the data field and a synonym candidate fulfill a

predetermined synonym acceptance criterion taking into account writing

variations, adding before searching a counterpart for a data record the

value of the data field to the synonym set as a member referring to the

synonym candidate (*In step 212, each Suspect component word is*

checked for synonyms by reference to the synonym table 302. For

example, the invention would check "Smith" against the entries in the

synonym table 302. In this example, a match exists in row 310. The

invention updates the record 308 corresponding to this match with a

pointer (in this example, 12) of the matching row 310. Such an operation is

represented by steps 708 and 710 of Figure 7. Figure 7 also illustrates an

example form 712 of records 304, 306, and 308, [0113]. See further

Figures 2 & 6).

Murakami discloses:

determining among the predetermined identifier values at least one

synonym candidate relating to the value of the data field in the data record

(*generating a first set of candidate synonyms for the object word, based*

on whole of the document data and generating at least one second set of

candidate synonyms for the object word, based on at least one part of the

document data and narrowing the candidate synonyms contained in the

first set using the candidate synonyms contained in the second set,

[0016]).

Regarding **claim 22**, Toner further discloses a method, wherein the

synonym set is empty before adding the value of the data field to the

synonym set (*See Synonym Table of Figure 3*).

Regarding **claim 23**, Toner further discloses a method, wherein the

synonym set contains at least one member before adding the value of the

data field to the synonym set (*See Synonym Table of Figure 3*).

Regarding **claim 24**, Toner further discloses a computer program

comprising program instructions for causing a computer to perform the

method of any one of **claims 1, 2, 6, 13, 18, 20,** or **21** (*main program 102*

of Figure 1).

Regarding **claim 25**, Toner further discloses a computer program

embodied on a computer-readable record medium (*Figure 9*).

Regarding **claim 26**, Toner clearly shows and discloses a data

processing system for processing data records for finding counterparts in

a reference data set (*Figure 9*), the system comprising:

means (*main program 102 of Figure 1*) for receiving data

records (*Users select whether they wish to use a single Suspect*

name at a time, manually entered by the keyboard, or to use an

existing file containing a list of Suspect names, [0094]),

means for storing the reference data set (*database entry,*

[0062]),

means for storing predetermined identifier values for an

identifier (*Figure 3 shows an exemplary synonym table*),

means for determining (*main program 102 of Figure 1*) in the

data records values of a data field, the data field representing the

identifier (*Figure 3 shows an exemplary parsed name where in the*

inputted suspect name "Robert James Smith" is divided into three

name components 'Robert', 'James', and 'Smith', [0139]-0140]),

means for associating (*main program 102 of Figure 1*)

values of the data field and respective predetermined identifier

values as synonyms (*Name substitution matching, where*

component words of the Suspect name are checked against a

synonym table and are replaced with their respective synonyms,

[0088]),

means for searching (*main program 102 of Figure 1*)

counterparts in the reference data set for the data records, said

searching involving comparing to entries of the reference data set

values of data fields and/or synonyms associated with the values of

the data fields (*In step 212, each Suspect component word is*

checked for synonyms by reference to the synonym table 302. For

example, the invention would check "Smith" against the entries in

the synonym table 302. In this example, a match exists in row 310.

The invention updates the record 308 corresponding to this match

with a pointer (in this example, 12) of the matching row 310. Such

an operation is represented by steps 708 and 710 of Figure 7.

Figure 7 also illustrates an example form 712 of records 304, 306,

and 308, [0113]. See further Figures 2 & 6).

means to determine (*main program 102 of Figure 1*) if a

synonym candidate and the value of the data field fulfill a

predetermined synonym acceptance criterion taking into account

writing variations, and if the predetermined synonym acceptance

criterion is fulfilled, to associate the value of the data field and the

synonym candidate as synonyms (*In step 212, each Suspect*

component word is checked for synonyms by reference to the

synonym table 302. For example, the invention would check

"Smith" against the entries in the synonym table 302. In this

example, a match exists in row 310. The invention updates the

record 308 corresponding to this match with a pointer (in this

example, 12) of the matching row 310. Such an operation is

represented by steps 708 and 710 of Figure 7. Figure. 7 also

illustrates an example form 712 of records 304, 306, and 308,

[0113]. See further Figures 2 & 6).

Murakami discloses:

determine from the predetermined identifier values at least

one synonym candidate for a value of the data field (*generating a*

first set of candidate synonyms for the object word, based on whole

of the document data and generating at least one second set of

candidate synonyms for the object word, based on at least one part

of the document data and narrowing the candidate synonyms

contained in the first set using the candidate synonyms contained in

the second set, [0016]).

Regarding **claim 27**, Toner further discloses a data processing

system, further comprising

means for storing a synonym set, members of said synonym

set referring to respective predetermined identifier values (*Figure 3*

of Toner shows an exemplary synonym table, wherein each

member of the synonym set refers to the sought component name),

wherein the means for associating values of the data field

and respective predetermined identifier values as synonyms are

configured to add to the synonym set a member referring to the synonym associated with the value of the data field before activation of the means for searching counterparts (*In step 212, each Suspect component word is checked for synonyms by reference to the synonym table 302. For example, the invention would check "Smith" against the entries in the synonym table 302. In this example, a match exists in row 310. The invention updates the record 308 corresponding to this match with a pointer (in this example, 12) of the matching row 310. Such an operation is represented by steps 708 and 710 of Figure 7. Figure. 7 also illustrates an example form 712 of records 304, 306, and 308,* [0113]. See further Figures 2 & 6).

Regarding **claim 28**, Toner clearly shows and discloses a data processing system for processing a synonym set for searching counterparts in a reference data set for data records (*Figure 9*), a data record comprising a data field representing an identifier, members of the synonym set being first identifier values and referring to respective second identifier values, said second identifier values being predetermined identifier values, and said searching involving comparing a value of the data field to the synonym set (*name components in Figure 3*), the system comprising :

means for storing the synonym set (*Figure 3 of Toner shows*

an exemplary synonym table, wherein each member of the

synonym set refers to the sought component name),

means for storing predetermined identifier values for the

identifier (*name components in Figure 3*),

means (*main program 102 of Figure 1*) for receiving data

records (*Users select whether they wish to use a single Suspect*

name at a time, manually entered by the keyboard, or to use an

existing file containing a list of Suspect names, [0094]),

means (*main program 102 of Figure 1*) for determining in the

data records values of the data field (*Figure 3 shows an exemplary*

parsed name where in the inputted suspect name "Robert James

Smith" is divided into three name components 'Robert', 'James',

and 'Smith', [0139]-0140]), and

means (*main program 102 of Figure 1*) for adding to the

synonym set a value of the data field and respective predetermined

identifier values associated as synonyms before searching

counterparts in the reference data set if a synonym candidate and

the value of the data field fulfill a predetermined synonym

acceptance criterion taking into account writing variations (*In step*

212, each Suspect component word is checked for synonyms by

reference to the synonym table 302. For example, the invention

would check "Smith" against the entries in the synonym table 302.

In this example, a match exists in row 310. The invention updates

the record 308 corresponding to this match with a pointer (in this

example, 12) of the matching row 310. Such an operation is

represented by steps 708 and 710 of Figure 7. Figure. 7 also

illustrates an example form 712 of records 304, 306, and 308,

[0113]. See further Figures 2 & 6).

Murakami discloses:

said means configured to determine from the predetermined

identifier values at least one synonym candidate for a value of the

data field (*generating a first set of candidate synonyms for the*

object word, based on whole of the document data and generating

at least one second set of candidate synonyms for the object word,

based on at least one part of the document data and narrowing the

candidate synonyms contained in the first set using the candidate

synonyms contained in the second set, [0016]).

13.   **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Toner et al. (Pub. No. US 2004/0024760, filed on July 31, 2002; hereinafter

Toner) in view of Murakami et al. (Pub. No. US 2004/0181759, filed on July, 19,

2002; hereinafter Murakami) and further in view of Bellany et al. (Pub. No. US

2002/0078024, filed on October 12, 2001; hereinafter Bellany).

Regarding **claim 8**, Toner, as modified by Murakami, does not disclose the limitation of this instant claim.

Bellany discloses the number of changes required for converting the value of the data field to be identical to a synonym candidate is calculated using the Levenshtein distance (*on not finding any entries in the dictionary identical to the input data, the processor may then search allowing for one error at first, and if that search fails, performing a further search, allowing for two errors, and so on. A single error may be counted if the search term and the dictionary entry differ by one character being deleted, added or replaced with a different character. The quality of correspondence between two terms may be judged by calculating the " Levenshtein" distance between the two strings,* [0044]).

It would have been obvious to a person with ordinary skills in the art at the time of the invention to incorporate the teachings of Bellany with the teachings of Toner, as modified by Murakami, for the purpose of retrieving a desired postal address from a plurality of postal addresses by searching a dictionary for entries in the dictionary corresponding to the searched terms ([Abstract] of Bellany).

Conclusion

14.   These following prior arts made of record and not relied upon are considered pertinent to Applicant's disclosure:

Burdick et al. (Pub. No. US 2004/0107205) teaches Boolean rule-based system for clustering similar records.

Lach et al. (Pub. No. US 2004/0088157) teaches method for characterizing/classifying a document.

Kato et al. (Pat. No. 5,519,857) teaches hierarchical pre-search type text search method and apparatus and magnetic disk unit used in the apparatus.

The Examiner requests, in response to this Office action, support(s) must be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the Examiner in prosecuting the application.

When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Son T. Hoang whose telephone number is (571) 270-1752. The Examiner can normally be reached on Monday - Friday (7:30 AM – 5:00 PM).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Christian Chace can be reached on (571) 272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S.H./
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Patent Examiner
January 15, 2007

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